

Dedicated LTE-IoT Test and Monitoring



LiteProbe is an ultra-compact and purpose-built device for LTE IoT (NB-IoT and eMTC) radio access network and data services measurement. The measurement parameters are displayed on the LiteProbe's OLED screen or other DingLi products' interfaces (depending on the measurement mode option) to provide an instant view of the network performance. LiteProbe is simple to use, extremely portable and designed for practicality to allow instant LTE-IoT network and services quality evaluation.

Main Features

Three Operation Modes

WiFi Mode (connected to the LiteProbe App)

- Connects to LiteProbe app for standard Android devices over WiFi for LTE IoT test services
- Configure test plan in LiteProbe app.
- Real-time monitoring in LiteProbe app
- Supported service tests: Attach, Ping and Idle
- Parameters, i.e. RSRP, SINR, TxPower, PCI, EARFCN, Cell ID and RSSI, may be displayed on LiteProbe app in real time
- Network lock, band lock and APN settings, Ping IP configuration in LiteProbe app, and these settings remain valid for standalone test when the WiFi is disconnected.
- LiteProbe 3.0 network status (i.e. connected/idle/inactive) is displayed on the LiteProbe app interface.



WiFi Mode (with Pilot Walktour Connection)

- Connects to Pilot Walktour Android devices through WiFi for LTE IoT test services
- Collects air interface signaling messages and advanced statistics generation.
- Services test include: FTP, Attach, Ping, UDP and Idle
- Real-time measurement display on Pilot Walktour Android interfaces
- Handover between 2G/3G/4G RAT and LTE IoT.
- Supported Pilot Walktour Android devices: Samsung S8 G9500, Samsung S9 G9600, VIVO X23, Samsung A60
- Forcing functions
 - Network/Band/Channel No./Cell locking
 - Scrambling Code/APN Settings



- eMTC handover measurement and displays the user plane delay information.
- Forcing functions such as network locking, channel No. locking, band locking and cell locking for multiple test scenarios.
- Users may enter multiple AT commands in Pilot Pioneer.

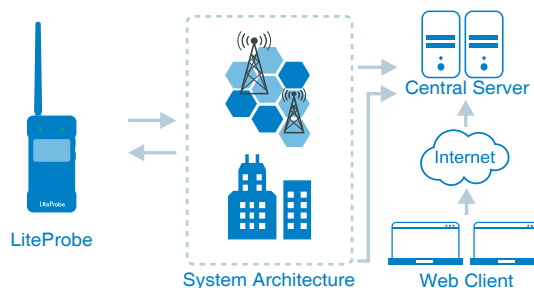


Monitoring Mode

- Operates as a standalone LTE IoT device or Pilot Fleet Unify remote measurement probe
- Connects to Pilot Fleet Unify for data transmission, device monitoring, statistics generation
- Test services include Ping, Attach and Idle
- Displays network parameters on the OLED screen, i.e. RSRP, SINR, TxPower, PCI, EARFCN, Cell ID, eNodeB and RSSI
- Displays the measurement grade on the OLED screen

USB Mode (with Pilot Pioneer Connection)

- Connects to Pilot Pioneer through USB for LTE IoT services test.
- Collects air interface signaling messages and advanced statistics generation.
- Supports 3GPP Release 13 protocol, and display NB-IoT/eMTC key parameters and messages with a single click.
- Supported services test: Ping and UDP through AT command, Ping and UDP over PPP (i.e. AT/PPP Ping, AT/PPP UDP)
- Initiates service test under LiteProbe's Idle/Connected/PSM status.
- NB-IoT/eMTC cell reselection and measurement, and displays the information such as delay, cell reselection type and exception causes.



Device	Time	Longitude	Latitude	RSRP	SINR	RSSI	RSRQ	EARFCN	PCI	UE TxPower
759	2018-04-23 12:28:20	0	0	-69.00	21.00	-67.00	-3.00	2506	176	-16.00
759	2018-04-23 12:28:15	0	0	-69.00	20.00	-67.00	-3.00	2506	176	-15.00
759	2018-04-23 12:28:09	0	0	-69.00	16.00	-67.00	-3.00	2506	176	-13.00
759	2018-04-23 12:28:05	0	0	-69.00	12.00	-69.00	-3.00	2506	176	-11.00
759	2018-04-23 12:27:59	0	0	-69.00	13.20	-69.00	-3.00	2506	176	-12.00
759	2018-04-23 12:27:54	0	0	-69.00	14.20	-58.00	-11.00	2506	176	-13.00
759	2018-04-23 12:27:50	0	0	-69.00	12.60	-58.00	-11.00	2506	176	-12.00
759	2018-04-23 12:27:44	0	0	-69.00	13.00	-68.00	-3.00	2506	176	-14.00
759	2018-04-23 12:27:39	0	0	-69.00	16.60	-68.00	-3.00	2506	176	-11.00
759	2018-04-23 12:27:35	0	0	-69.00	17.20	-57.00	-12.00	2506	176	-11.00
759	2018-04-23 12:27:29	0	0	-69.00	13.40	-57.00	-12.00	2506	176	-11.00
759	2018-04-23 12:27:24	0	0	-69.00	12.60	-57.00	-12.00	2506	176	-12.00

SIM detection

Automatically detects SIM card, and displays the battery capacity and the current network operator on the OLED screen.

Product Values

Mobile Network Operators and Service Providers

- Accurately detect network signal and quality
- Low cost with free LiteProbe app
- Three operation modes (i.e. WiFi, USB and monitoring mode) for both regular users and network engineers
- A professional tool for both test and monitoring
- Replaces commercial LTE-IoT terminals which cannot display the real-time LTE-IoT measurement information
- Simulate LTE-IoT sensors deployment scenario

Testers and Users

- Compact form factor and portable with long battery standby time
- Easy to execute LTE-IoT troubleshooting without a dedicated technician or network engineer
- Test plan configuration (during WiFi Mode with Pilot Walktour Android or LiteProbe app)
- Real-time test status monitoring
- Various statistical and graphical presentations during WiFi Mode with Pilot Walktour Android

LiteProbe Specifications

Specification	Description
Color	Silver white frame, and black body
Dimension	114.4mm height, 53.4mm length and 16mm width
Total Weight	135 g (without external antenna)
Material	Aluminium alloy+glass
LTE-IoT Module	Qualcomm 9206 chipset Band:B1/B2/B3/B5/B8/B12/B13/B17/B18/B19/B20/B25/B28/B66 Hisilicon Boudica 120 chipset Band:B1/B3/B5/B8/B20/B28 MediaTek MT 2625 chipset Band: B3/B5/B8
Screen	2.4-inch OLED screen
SIM Slot	Micro card slot
Antenna	External LTE-IoT Antenna, standard SMA-KE interface, antenna gain: 3dBi Built-in WiFi and GPS antenna,
Built-in Battery	Rated Capacity: 1100mAh Limited Charge Voltage:3.7V
Power Consumption	4 W (Max.)
Current	0.8A
Battery Performance	Monitoring mode: 4 hours WiFi mode: 3 hours USB mode: at least 4 hours
Standby Time	Built-in battery's standby time is over 12 hours under Idle status
Power Supply Voltage	5V DC
Mobile Power	Power bank support
Shockproof	Fully operational after 1-meter height drop
Adaptor	Standard 5 V Micro USB interface
Working Temperature	-25~50 C